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<120> Plant Catabolite Repression Genes

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Phe Val Asp Gly Glu Trp Arg His Asp Glu Arg Gln Pro Thr Ile Ser
        35                  40                  45

Gly Glu Phe Gly Ile Val Asn Thr Leu Tyr Leu Thr Arg Glu Tyr Asn
    50                  55                  60

Gln Ile Asn Thr Leu Ser Ser Pro Ser Thr Pro Gly Ser Arg Met Asn
65                  70                  75                  80

Met Asp Val Asp Asn Glu Asn Phe Gln Arg Thr Val Thr Leu Ser Asp
                85                  90                  95

Gly Thr Val Ser Glu Gly Thr Leu Arg Val Ser Glu Ala Ala Ile Gln
            100                 105                 110

Ile Ser Arg Cys Arg Val Ser Glu Tyr Leu Asn Leu His Thr Cys Tyr
        115                 120                 125

Asp Leu Leu Pro Asp Ser Gly Lys Val Ile Ala Leu Asp Ile Asn Leu
    130                 135                 140

Pro Val Lys Gln Ser Phe His Ile Leu His Glu Gln Gly Ile Pro Val
145                 150                 155                 160

Ala Pro Leu Trp Asp Ser Phe Arg Gly Gln Phe Val Gly Leu Leu Ser
                165                 170                 175

Pro Leu Asp Phe Ile Leu Ile Leu Arg Glu Leu Glu Thr His Gly Ser
            180                 185                 190

Asn Leu Thr Glu Glu Gln Leu Glu Thr His Thr Ile Ser Ala Trp Lys
        195                 200                 205

Glu Ala Lys Arg Gln Thr Asn Gly Arg Asn Asp Ser Gln Trp Arg Pro
    210                 215                 220

Gln Gln His Leu Val His Ala Thr Pro Tyr Glu Ser Leu Arg Asp Ile
225                 230                 235                 240

Ala Val Lys Leu Leu Gln Asn Gly Ile Ser Thr Val Pro Val Ile Tyr
                245                 250                 255

Ser Ser Ser Ser Asp Gly Ser Phe Pro Gln Leu Leu His Leu Ala Ser
            260                 265                 270

Leu Ser Gly Ile Leu Lys Cys Ile Cys Arg Tyr Phe Lys Asn Ser Thr
        275                 280                 285

Gly Asn Leu Pro Ile Leu Asn Gln Pro Val Cys Ser Ile Pro Leu Gly
    290                 295                 300

Ser Trp Val Pro Lys Ile Gly Asp Leu Asn Ser Arg Pro Leu Ala Met
305                 310                 315                 320

Leu Arg Pro Asn Ala Ser Leu Ser Ser Ala Leu Asn Met Leu Val Gln
                325                 330                 335
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Ala Gly Val Ser Ser Ile Pro Ile Val Asp Asp Asn Asp Ser Leu Leu
            340                 345                 350

Asp Thr Tyr Ser Arg Ser Asp Ile Thr Ala Leu Ala Lys Asp Lys Val
        355                 360                 365

Tyr Thr His Val Arg Leu Asp Glu Met Thr Ile His Gln Ala Leu Gln
    370                 375                 380

Leu Gly Gln Asp Ala Asn Thr Pro Phe Gly Phe Phe Asn Gly Gln Arg
385                 390                 395                 400

Cys Gln Met Cys Leu Arg Ser Asp Pro Leu Leu Lys Val Met Glu Arg
                405                 410                 415

Leu Ala Asn Pro Gly Val Arg Arg Val Phe Ile Val Glu Ala Gly Ser
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Lys Arg Val Glu Gly Ile Ile Ser Leu Ser Asp Ile Phe Lys Phe Leu
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Leu Ser Leu
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<213> Oryza sativa

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<211> 493
<212> PRT
<213> Oryza sativa

<400> 4

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Lys Arg Val Tyr Leu Thr Gly Ser Phe Thr Arg Trp Thr Glu His Leu
35 40 45

Pro Met Ser Pro Val Glu Gly Cys Pro Thr Val Phe Gln Ala Ile Cys
50 55 60

Ser Leu Ser Pro Gly Ile His Gln Tyr Lys Phe Cys Val Asp Gly Glu
65 70 75 80

Trp Arg His Asp Glu Arg Gln Pro Thr Ile Thr Gly Asp Tyr Gly Val
85 90 95

Val Asn Thr Leu Cys Leu Thr Arg Asp Phe Asp Gln Ile Asn Thr Ile
100 105 110

Leu Ser Pro Ser Thr Pro Gly Ser Arg Met Asn Met Asp Val Asp Asn
115 120 125

Asp Asn Phe Gln Arg Thr Val Ser Leu Ser Asp Gly Ile Ile Gln Glu
130 135 140

Gly Pro Gln Arg Ile Ser Glu Ala Ala Ile Gln Ile Ser Arg Cys Arg
145 150 155 160

Val Ala Asp Phe Leu Asn Gly Gln Thr Gly Tyr Asp Leu Leu Pro Asp
165 170 175

Ser Gly Lys Val Ile Ala Leu Asp Val Asn Leu Pro Val Lys Gln Ser
180 185 190

Phe His Ile Leu His Glu Gln Gly Ile Pro Val Ala Pro Leu Trp Asp
195 200 205

Ser Phe Arg Gly Gln Phe Val Gly Leu Leu Ser Pro Leu Asp Phe Ile
210 215 220

Leu Ile Leu Arg Glu Leu Glu Thr His Gly Ser Asn Leu Thr Glu Glu
225 230 235 240

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Gln Leu Glu Thr His Thr Ile Ser Ala Trp Lys Glu Ala Lys Arg Gln
                245                 250                 255

Thr Tyr Ala Arg Asn Glu Gly Ser Trp Arg Ala Asn His His Leu Val
            260                 265                 270

His Ala Thr Pro Tyr Glu Ser Leu Arg Glu Ile Ala Met Lys Ile Leu
        275                 280                 285

Gln Asn Gly Val Ser Thr Val Pro Ile Met Phe Ser Ser Ser Pro Asp
    290                 295                 300

Gly Ser Tyr Pro Gln Leu Leu His Leu Ala Ser Leu Ser Gly Ile Leu
305                 310                 315                 320

Lys Cys Ile Cys Arg Tyr Phe Lys Asn Ser Gln Gly Asn Leu Pro Ile
                325                 330                 335

Leu Ser Gln Pro Val Cys Thr Ile Pro Leu Gly Thr Trp Val Pro Lys
            340                 345                 350

Ile Gly Asp Pro Asn Gly Arg Pro Leu Ala Met Leu Arg Pro Asn Thr
        355                 360                 365

Ser Leu Ser Ala Ala Leu Asn Leu Leu Val Gln Ala Gly Val Ser Ser
    370                 375                 380

Ile Pro Ile Val Asp Asp Asn Asp Ser Leu Leu Asp Thr Tyr Ser Arg
385                 390                 395                 400

Ser Asp Ile Thr Ala Leu Ala Lys Asp Lys Val Tyr Thr His Ile Arg
                405                 410                 415

Leu Asp Glu Met Thr Ile His Gln Ala Leu Gln Leu Gly Gln Asp Ala
            420                 425                 430

Asn Ser Pro Phe Gly Phe Phe Asn Gly Gln Arg Cys Gln Met Cys Leu
        435                 440                 445

Arg Ser Asp Thr Leu Leu Lys Val Met Glu Arg Leu Ala Asn Pro Gly
    450                 455                 460

Val Arg Arg Val Phe Ile Val Glu Ala Gly Ser Lys Arg Val Glu Gly
465                 470                 475                 480

Ile Ile Ser Leu Ser Asp Ile Phe Lys Phe Leu Leu Ser
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<212> DNA
<213> Oryza sativa

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<210> 6
<211> 189
<212> PRT
<213> Oryza sativa

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Thr Leu Pro Gly Ile Val Lys Phe Ile Cys Ser Lys Leu Gln Glu Gln
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Pro Glu Gly Tyr Ser Phe Leu Gln Asn Gln Ile Val Ser Met Pro Ile
35 40 45

Gly Thr Trp Ser Pro His Thr Gly Lys Ala Ser Asn Arg Gln Leu Arg
50 55 60

Thr Ser Arg Pro Ser Thr Pro Leu Asn Ser Cys Leu Asp Leu Leu Leu
65 70 75 80

Glu Asp Arg Val Ser Ser Ile Pro Ile Val Asp Asp Asn Gly Ala Leu
85 90 95

Leu Asp Val Tyr Ser Leu Ser Asp Ile Met Ala Leu Gly Lys Asn Asp
100 105 110

Val Tyr Thr Arg Ile Glu Leu Glu Gln Val Thr Val Glu His Ala Leu
115 120 125

Glu Leu Gln Tyr Gln Val Asn Gly Arg Arg His Cys His Thr Cys Leu
130 135 140

Ser Thr Ser Thr Phe Leu Glu Val Leu Glu Gln Leu Ser Ala Pro Gly
145 150 155 160

Val Arg Arg Val Val Val Ile Glu Pro Arg Ser Arg Phe Val Gln Gly
165 170 175

Ile Ile Ser Leu Arg Asp Ala Phe Thr Phe Leu Ile Gly
180 185

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<211> 2160
<212> DNA
<213> Glycine max

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<212> PRT
<213> Glycine max

<400> 8

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             20                  25                  30

Ser Val Tyr Leu Ser Gly Ser Phe Thr Arg Trp Ser Glu Leu Leu Gln
         35                  40                  45

Met Ser Pro Val Glu Gly Cys Pro Thr Val Phe Gln Val Ile His Ser
     50                  55                  60

Leu Val Pro Gly His His Gln Tyr Lys Phe Phe Val Asp Gly Glu Trp
 65                  70                  75                  80

Arg His Asp Asp Leu Gln Pro Cys Glu Ser Gly Glu Tyr Gly Ile Val
                 85                  90                  95

Asn Thr Val Ser Leu Ala Thr Asp Pro Asn Ile Leu Pro Val Leu Thr
            100                 105                 110
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Pro Asp Ile Val Ser Gly Ser Asn Met Asp Val Asp Asn Glu Ala Phe
        115                 120                 125

Arg Arg Met Val Arg Leu Thr Asp Gly Thr Leu Ser Asn Val Leu Leu
    130                 135                 140

Pro Arg Ile Ser Asp Val Asp Ile Gln Thr Ser Arg Gln Arg Ile Ser
145                 150                 155                 160

Ala Phe Leu Ser Met Ser Thr Ala Tyr Glu Leu Leu Pro Glu Ser Gly
                165                 170                 175

Lys Val Val Thr Leu Asp Val Asp Leu Pro Val Lys Gln Ala Phe His
            180                 185                 190

Ile Leu His Glu Gln Gly Ile Pro Ile Ala Pro Leu Trp Asp Ile Cys
        195                 200                 205

Lys Gly Gln Phe Val Gly Val Leu Ser Ala Leu Asp Phe Ile Leu Ile
    210                 215                 220

Leu Arg Glu Leu Gly Asn His Gly Ser Asn Leu Thr Glu Glu Glu Leu
225                 230                 235                 240

Glu Thr His Thr Ile Ser Ala Trp Lys Gly Gly Lys Trp Thr Gly Phe
                245                 250                 255

Thr Gln Cys Phe Ile Arg Ala Gly Pro Tyr Asp Asn Leu Lys Glu Ile
            260                 265                 270

Ala Val Lys Ile Leu Gln His Gly Ile Ser Thr Val Pro Ile Ile His
        275                 280                 285

Ser Glu Asp Gly Ser Phe Pro Gln Leu Leu His Leu Ala Ser Leu Ser
    290                 295                 300

Gly Ile Leu Lys Cys Ile Cys Arg Tyr Phe Arg Asn Cys Ser Ser Ser
305                 310                 315                 320

Leu Pro Ile Leu Gln Leu Pro Ile Cys Ala Ile Pro Val Gly Thr Trp
                325                 330                 335

Val Pro Lys Ile Gly Glu Ser Asn Arg Arg Pro Leu Ala Met Leu Arg
            340                 345                 350

Pro Asn Ala Ser Leu Thr Ser Ala Leu Asn Leu Leu Val Gln Ala Gln
        355                 360                 365

Val Ser Ser Ile Pro Ile Val Asp Asp Ser Asp Ser Leu Leu Asp Ile
    370                 375                 380

Tyr Cys Arg Ser Asp Ile Thr Ala Leu Ala Lys Asp Arg Thr Tyr Thr
385                 390                 395                 400

His Ile Asn Leu Asp Glu Met Thr Val His Gln Ala Leu Gln Leu Gly
                405                 410                 415

Gln Asp Ser Tyr Asn Thr Tyr Glu Leu Ser Cys Gln Arg Cys Gln Met
            420                 425                 430
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Cys Leu Arg Thr Asp Ser Leu His Lys Val Met Glu Arg Leu Ala Ser
        435                 440                 445

Pro Gly Val Arg Arg Leu Val Ile Val Glu Ala Gly Ser Lys Arg Val
    450                 455                 460

Glu Gly Ile Ile Ala Leu Ser Asp Ile Phe Asn Phe Phe Leu Gly Tyr
465                 470                 475                 480

Asn Ser
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<210> 9
<211> 2538
<212> DNA
<213> Glycine max

<400> 9

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tgtgaacaaa aaaaaataaa aaactataag cagcaattgt ttgtataagt gatcggtgtt 2460
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<210> 10
<211> 492
<212> PRT
<213> Glycine max

<400> 10

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Ala Gly Thr Val Leu Ile Pro Met Arg Phe Val Trp Pro Tyr Gly Gly
             20                  25                  30

Arg Ser Val Phe Leu Ser Gly Ser Phe Thr Arg Trp Leu Glu Leu Leu
         35                  40                  45

Pro Met Ser Pro Val Glu Gly Cys Pro Thr Val Phe Gln Val Ile Tyr
     50                  55                  60

Asn Leu Pro Pro Gly Tyr His Gln Tyr Lys Phe Phe Val Asp Gly Glu
 65                  70                  75                  80

Trp Arg His Asp Glu His Gln Pro Tyr Val Pro Gly Glu Tyr Gly Ile
                 85                  90                  95

Val Asn Thr Val Leu Leu Ala Thr Asp Pro Asn Tyr Met Pro Val Leu
            100                 105                 110

Pro Pro Asp Val Ala Ser Gly Asn Ser Met Asp Val Asp Asn Asp Ala
        115                 120                 125

Phe Arg Arg Met Ala Arg Leu Thr Asp Gly Thr Leu Ser Glu Val Leu
    130                 135                 140

Pro Arg Ile Ser Asp Thr Asp Val Gln Ile Ser Arg Gln Arg Ile Ser
145                 150                 155                 160

Ala Phe Leu Ser Ser His Thr Ala Tyr Glu Leu Leu Pro Glu Ser Gly
                165                 170                 175

Lys Val Val Ala Leu Asp Val Asp Leu Pro Val Lys Gln Ala Phe His
            180                 185                 190

Ile Leu His Glu Gln Gly Val Phe Met Ala Pro Leu Trp Asp Phe Cys
        195                 200                 205

Lys Gly Gln Phe Val Gly Val Leu Ser Ala Ser Asp Phe Ile Leu Ile
    210                 215                 220

Leu Arg Glu Leu Gly Asn His Gly Ser Asn Leu Thr Glu Glu Glu Leu
225                 230                 235                 240

Glu Thr His Thr Ile Ser Ala Trp Lys Glu Gly Lys Ser Tyr Leu Asn
                245                 250                 255

Arg Gln Asn Asn Gly His Gly Thr Ala Phe Ser Arg Cys Phe Ile His
            260                 265                 270
```

```
Ala Gly Pro Tyr Asp Asn Leu Lys Asp Ile Ala Met Lys Ile Leu Gln
        275                 280                 285

Lys Glu Val Ser Thr Val Pro Ile Ile His Ser Ser Ser Glu Asp Ala
    290                 295                 300

Ser Phe Pro Gln Leu Leu His Leu Ala Ser Leu Ser Gly Ile Leu Lys
305                 310                 315                 320

Cys Ile Cys Arg Tyr Phe Arg His Cys Ser Ser Ser Leu Pro Val Leu
                325                 330                 335

Gln Leu Pro Ile Cys Ala Ile Pro Val Gly Thr Trp Val Pro Lys Ile
            340                 345                 350

Gly Glu Ser Asn Arg Arg Pro Leu Ala Met Leu Arg Pro Thr Ala Ser
        355                 360                 365

Leu Ala Ser Ala Leu Asn Leu Leu Val Gln Ala Gln Val Ser Ser Ile
    370                 375                 380

Pro Ile Val Asp Asp Asn Asp Ser Leu Leu Asp Ile Tyr Cys Arg Ser
385                 390                 395                 400

Asp Ile Thr Ala Leu Ala Lys Asn Arg Ala Tyr Thr His Ile Asn Leu
                405                 410                 415

Asp Glu Met Thr Val His Gln Ala Leu Gln Leu Gly Gln Asp Ala Tyr
            420                 425                 430

Ser Pro Tyr Glu Leu Arg Ser Gln Arg Cys Gln Met Cys Leu Arg Ser
        435                 440                 445

Asp Pro Leu His Lys Val Met Glu Arg Leu Ala Asn Pro Gly Val Arg
    450                 455                 460

Arg Leu Val Ile Val Glu Ala Gly Ser Lys Arg Val Glu Gly Ile Val
465                 470                 475                 480

Ser Leu Ser Asp Ile Phe Lys Phe Phe Ile Gly Gly
                485                 490
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<210> 11
<211> 1266
<212> DNA
<213> Glycine max

<400> 11

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tctacctctt tcgtttcgac tcatcattct taataccgat ttactggtca agaagagctt  180
gaccatcctt ctacaaaatg gtatcgtttc agccccgcta tgggattccc atacctcaac  240
ctttgctgga cttcttacga cttcggacta tataaatgtt atccaatatt actggcagaa  300
tccagaagcc ctcaatcaaa tagatcaatt caaattgagt agcttaagag atatcgaaaa  360
ggcaattggc gtactacctt tggagacggt atcggtacat cctgcgcgac ctctttacga  420
tgcttgtcgc gagatgttgc aaacccgggc ccgccgtatc ccgctggttg atgttgatga  480
cgagacggga aaagagatgg tggtcagtgt gattacacaa tatcgtatcc tgaagtttat  540
tagtgtcaat gtcgaagaga cggaattctt gaagaaaagt gtatcggaca tcaaacttgg  600
aacttatggg gacctacaaa ccgcaaatat ggacactccg gtgatcgacg tcatacatat  660
gatggtcaaa cacagcattt cgagcgttcc cattgttgac aaagattcgc gagtacttaa  720
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tttgactgtg ggagaagctt tggccaatag ggcagaagac tttgccggga tttatacttg 840
cagtgaagaa gacaggttgg attcgatctt tgacacgatt cgaaaatcta gagtgcatcg 900
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<210> 12
<211> 318
<212> PRT
<213> Glycine max

<400> 12
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Asp Phe Leu Lys Arg Arg Thr Ser Tyr Asp Val Leu Pro Leu Ser Phe
20 25 30

Arg Leu Ile Ile Leu Asn Thr Asp Leu Leu Val Lys Lys Ser Leu Thr
35 40 45

Ile Leu Leu Gln Asn Gly Ile Val Ser Ala Pro Leu Trp Asp Ser His
50 55 60

Thr Ser Thr Phe Ala Gly Leu Leu Thr Thr Ser Asp Tyr Ile Asn Val
65 70 75 80

Ile Gln Tyr Tyr Trp Gln Asn Pro Glu Ala Leu Asn Gln Ile Asp Gln
85 90 95

Phe Lys Leu Ser Ser Leu Arg Asp Ile Glu Lys Ala Ile Gly Val Leu
100 105 110

Pro Leu Glu Thr Val Ser Val His Pro Ala Arg Pro Leu Tyr Asp Ala
115 120 125

Cys Arg Glu Met Leu Gln Thr Arg Ala Arg Arg Ile Pro Leu Val Asp
130 135 140

Val Asp Asp Glu Thr Gly Lys Glu Met Val Val Ser Val Ile Thr Gln
145 150 155 160

Tyr Arg Ile Leu Lys Phe Ile Ser Val Asn Val Glu Glu Thr Glu Phe
165 170 175

Leu Lys Lys Ser Val Ser Asp Ile Lys Leu Gly Thr Tyr Gly Asp Leu
180 185 190

Gln Thr Ala Asn Met Asp Thr Pro Val Ile Asp Val Ile His Met Met
195 200 205

Val Lys His Ser Ile Ser Ser Val Pro Ile Val Asp Lys Asp Ser Arg
210 215 220

```
Val Leu Asn Leu Phe Glu Ala Val Asp Val Ile Thr Ile Ile Lys Gly
225                 230                 235                 240

Gly Val Tyr Asp Gly Leu Thr Leu Thr Val Gly Glu Ala Leu Ala Asn
                245                 250                 255

Arg Ala Glu Asp Phe Ala Gly Ile Tyr Thr Cys Ser Glu Glu Asp Arg
            260                 265                 270

Leu Asp Ser Ile Phe Asp Thr Ile Arg Lys Ser Arg Val His Arg Leu
        275                 280                 285

Val Val Ile Asp Glu Glu Gln His Leu Lys Gly Val Ile Ser Leu Ser
    290                 295                 300

Asp Ile Leu Gln Tyr Val Leu Leu His Gly Glu Asp Asp Asp
305                 310                 315
```

<210> 13
<211> 1632
<212> DNA
<213> Triticum aestivum

<400> 13

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gcaacctact ataactggag agtatggggt ggtaaacact ttatacttga caagggaatt  180
tgaccacata aatactgtac tgagccccac tacacctggg agcaggatgg atgtggacag  240
tgacagtttt caacgaatgg gttcgttgtc ggatggtgcc cttcaggaag gttctccaag  300
aatctcagag gctgctatac agatctctag gtgtcgtgtt gctgagtatc tgaatgcgca  360
tacaggctat gacctactac cagattctgg aaaggtcatt gctctggaca ttaatttacc  420
tgtgaagcaa tctttccata ttctccatga acaggggatt cctgtggctc ctctgtggga  480
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agagctggaa actcatggct caaacctgac agaggaacag cttgaaacac acactatatc  600
tgcgtggaaa gaggctaagc ggcaaactta tggaagaaat gatggacaac ttagatcaaa  660
tcagcatcta gtgcatgcca ccccttatga atccttgagg ggtattgcca tgaaaatact  720
cgaaactggc atttctacag tcccaatcat ctattcatcg tcatcagatg gatcgtttcc  780
gcagctgttg catcttgcat ccctttcagg aattttgaaa tgtatctgta gatacttcaa  840
gaactccact ggtagtttgc cgattctaaa ccaaccagta tgctcaattc cgctgggtac  900
ctgggttcca aaaattggtg aaccaaatgg tcatccattg gctatgttgc ggcctaatac  960
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gaagagctag catgcaagaa agagattgtg gagccaacat ggagttctct ctctggcttg 1440
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<210> 14
<211> 442
<212> PRT
<213> Triticum aestivum

<400> 14

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Leu Pro Pro Gly Ile Tyr Gln Tyr Lys Phe Asn Val Asp Gly Gln Trp
            20                  25                  30

Arg His Asp Glu Gly Gln Pro Thr Ile Thr Gly Glu Tyr Gly Val Val
        35                  40                  45

Asn Thr Leu Tyr Leu Thr Arg Glu Phe Asp His Ile Asn Thr Val Leu
    50                  55                  60

Ser Pro Thr Thr Pro Gly Ser Arg Met Asp Val Asp Ser Asp Ser Phe
65                  70                  75                  80

Gln Arg Met Gly Ser Leu Ser Asp Gly Ala Leu Gln Glu Gly Ser Pro
                85                  90                  95

Arg Ile Ser Glu Ala Ala Ile Gln Ile Ser Arg Cys Arg Val Ala Glu
            100                 105                 110

Tyr Leu Asn Ala His Thr Gly Tyr Asp Leu Leu Pro Asp Ser Gly Lys
        115                 120                 125

Val Ile Ala Leu Asp Ile Asn Leu Pro Val Lys Gln Ser Phe His Ile
    130                 135                 140

Leu His Glu Gln Gly Ile Pro Val Ala Pro Leu Trp Asp Ser Phe Arg
145                 150                 155                 160

Gly Gln Phe Val Gly Leu Leu Ser Pro Leu Asp Phe Ile Leu Ile Leu
                165                 170                 175

Arg Glu Leu Glu Thr His Gly Ser Asn Leu Thr Glu Glu Gln Leu Glu
            180                 185                 190

Thr His Thr Ile Ser Ala Trp Lys Glu Ala Lys Arg Gln Thr Tyr Gly
        195                 200                 205

Arg Asn Asp Gly Gln Leu Arg Ser Asn Gln His Leu Val His Ala Thr
    210                 215                 220

Pro Tyr Glu Ser Leu Arg Gly Ile Ala Met Lys Ile Leu Glu Thr Gly
225                 230                 235                 240

Ile Ser Thr Val Pro Ile Ile Tyr Ser Ser Ser Ser Asp Gly Ser Phe
                245                 250                 255

Pro Gln Leu Leu His Leu Ala Ser Leu Ser Gly Ile Leu Lys Cys Ile
            260                 265                 270

Cys Arg Tyr Phe Lys Asn Ser Thr Gly Ser Leu Pro Ile Leu Asn Gln
        275                 280                 285

Pro Val Cys Ser Ile Pro Leu Gly Thr Trp Val Pro Lys Ile Gly Glu
    290                 295                 300

Pro Asn Gly His Pro Leu Ala Met Leu Arg Pro Asn Thr Ser Leu Ser
305                 310                 315                 320
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Ser Ala Leu Asn Leu Leu Val Gln Ala Gly Val Ser Ser Ile Pro Ile
325 330 335

Val Asp Asp Asn Asp Ser Leu Ile Asp Thr Tyr Ser Arg Ser Asp Ile
340 345 350

Thr Ala Leu Ala Lys Asp Lys Val Tyr Thr His Ile Arg Leu Asp Glu
355 360 365

Met Thr Ile His Gln Ala Leu Gln Leu Gly Gln Asp Ala Asn Ser Pro
370 375 380

Phe Gly Leu Phe Asn Gly Gln Arg Cys Gln Met Cys Leu Gln Ser Asp
385 390 395 400

Pro Leu Leu Lys Val Met Glu Arg Leu Ala Asn Pro Gly Val Arg Arg
405 410 415

Val Phe Ile Val Glu Ala Gly Ser Lys Arg Val Glu Gly Val Ile Ser
420 425 430

Leu Ser Asp Ile Phe Lys Leu Leu Leu Ser
435 440

<210> 15
<211> 538
<212> DNA
<213> Zea mays

<220>
<221> unsure
<222> (494)

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gcgtcaacct accatatctg gggagtttgg catagttaac acactttact tgacaaggga 180
atataaccaa ataaacacct tatcaagtcc aagcacacct ggaagcagga tgaacatgga 240
tgtggataat gaaaattttc aacgtacggt tacgttgtca gatggcaccg tttcagaagg 300
tactctgaga gtttcagagg ctgcaataca aatatctagg tgtcgtgttt ctgaatatct 360
gaatttgcat acatgctatg atttactccc agattctggc aaggttattg ccctagacat 420
taatttacct gtgaagcaat cattccatat tctccatgaa caggggattc ctgtagctcc 480
tctctgggac tcantcaaag gtcaatttgg tgggcccctt agcccaatgg atttcata 538

<210>
<211> 16
<212> PRT
<213> Zea mays

<220>
<221> UNSURE
<222> (50)

<400> 16
Val Ser Glu Tyr Leu Asn Leu His Thr Cys Tyr Asp Leu Leu Pro Asp
1 5 10 15

Ser Gly Lys Val Ile Ala Leu Asp Ile Asn Leu Pro Val Lys Gln Ser
20 25 30

Phe His Ile Leu His Glu Gln Gly Ile Pro Val Ala Pro Leu Trp Asp
35 40 45

Ser Xaa Lys Gly Gln Phe Gly Gly Pro Leu Ser
50 55

<210> 17
<211> 542
<212> DNA
<213> Oryza sativa

<220>
<221> unsure
<222> (248)

<220>
<221> unsure
<222> (534)

<220>
<221> unsure
<222> (539)

<400> 17
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gattgtcagt atgcctattg gtacatggtc accacatact ggcaaggcaa gcaatagaca 180
gcttagaact tcgcgaccaa gcactcctct aaattcatgc ctggatttgc tgcttgaaga 240
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cggtggacat ccttggagct gcaatacagt gaatggccga agacactgtc atactgctta 420
cacatactcc ggaggtttgg acattgtcac tcagggtgcg ggatctcttt taacaagaca 480
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gg 542

<210> 18
<211> 58
<212> PRT
<213> Oryza sativa

<220>
<221> UNSURE
<222> (23)

<400> 18
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1 5 10 15

Leu Leu Glu Asp Arg Val Xaa Ser Ile Pro Ile Val Asp Asp Asn Gly
20 25 30

Ala Leu Leu Asp Val Tyr Ser Leu Ser Asp Ile Met Ala Leu Gly Lys
35 40 45

Asn Asp Val Thr Leu Val Leu Ser Leu Asn
50 55

<210> 19
<211> 498

<212> DNA
<213> Glycine max

<400> 19
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tctttcgttt cgactcatca ttcttaatac cgatttactg gtcaagaaga gcttgaccat 180
ccttctacaa aatggtatcg tttcagcccc gctatgggat tcccatacct caacctttgc 240
tggacttctt acgacttcgg actatataaa tgttatccaa tattactggc agaatccaga 300
agccctcaat caaatagatc aattcaaatt gagtagctta agagatatcg aaaaggcaat 360
tggcgtacta cctttggaga cggtatcggt acatcctgcg cgacctcttt acgatgcttg 420
tcgcgaagat gttgcaaacc cgggcccgcc gtatcccgct gggttgatgt tgatgacgaa 480
gacgggaaaa gagatggt 498

<210> 20
<211> 122
<212> PRT
<213> Glycine max

<400> 20
Lys Gln Lys Gly Leu Lys Ser Ile Arg Asp Phe Leu Lys Arg Arg Thr
1 5 10 15

Ser Tyr Asp Val Leu Pro Leu Ser Phe Arg Leu Ile Ile Leu Asn Thr
20 25 30

Asp Leu Leu Val Lys Lys Ser Leu Thr Ile Leu Leu Gln Asn Gly Ile
35 40 45

Val Ser Ala Pro Leu Trp Asp Ser His Thr Ser Thr Phe Ala Gly Leu
50 55 60

Leu Thr Thr Ser Asp Tyr Ile Asn Val Ile Gln Tyr Tyr Trp Gln Asn
65 70 75 80

Pro Glu Ala Leu Asn Gln Ile Asp Gln Phe Lys Leu Ser Ser Leu Arg
85 90 95

Asp Ile Glu Lys Ala Ile Gly Val Leu Pro Leu Glu Thr Val Ser Val
100 105 110

His Pro Ala Arg Pro Leu Tyr Asp Ala Cys
115 120

<210> 21
<211> 514
<212> DNA
<213> Triticum aestivum

<400> 21
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ggatcgtttc cgcagctgtt gcatcttgca tccctttcag gaattttgaa atgtatctgt 180
agatacttca agaactccac tggtagtttg ccgattctaa accaaccagt atgctcaatt 240
ccgctggggt acctggggtt ccaaaaaatg ggtgaaccaa atggcatcca ttgggtatgt 300
tgccggccta atacatctct taactctgcc cttaacttgt tgggtcaagc tgggganttat 360
tcaataccca ttggtgggat gnataacgac cccttatttg acacataccc aagaagtgac 420
atcacantct ngcgaaagna aggctacacc ataccgccta gattagatga catcaacaag 480
gctgcaactc gggcaagacc gaatcacttt gggg 514

<210> 22
<211> 77
<212> PRT
<213> Triticum aestivum

<400> 22

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Leu Val His Ala Thr Pro Tyr Glu Ser Leu Arg Gly Ile Ala Met Lys
  1               5                  10                  15

Ile Leu Glu Thr Gly Ile Ser Thr Val Pro Ile Ile Tyr Ser Ser Ser
            20                  25                  30

Ser Asp Gly Ser Phe Pro Gln Leu Leu His Leu Ala Ser Leu Ser Gly
         35                  40                  45

Ile Leu Lys Cys Ile Cys Arg Tyr Phe Lys Asn Ser Thr Gly Ser Leu
     50                  55                  60

Pro Ile Leu Asn Gln Pro Val Cys Ser Ile Pro Leu Gly
 65                  70                  75
```